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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,645	12/08/2003	Yasuto Sakai	524941/0022	4946

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Lawrence Rosenthal
Stroock & Stroock & Lavan LLP
180 Maiden Lane
New York, NY 10038

EXAMINER

VO, ANH T N

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/731,645

Applicant(s)

SAKAI ET AL.

Examiner

Anh T.N. Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-7, 9-13, 15-17 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-3, 5, 6, 9-13 and 17 is/are rejected.
- 7) ☐ Claim(s) 7, 15, 16 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

Non-Final Rejection

CLAIM REJECTIONS

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-7, 9-13 and 17 are rejected under 35 USC 103 (a) as being unpatentable over Miyazawa et al. (Pub. No.: US 2002/0109760) in view of (JP Pat. 5-62448) and further in view of Masuda et al. (JP Pat. 10-235889).

Note: The method steps are inherently taught in the apparatus device/limitations in the rejections as follow:

Miyazawa et al. discloses in Figures 22A-22B and 29-30 an ink cartridge comprising:

- a container body (162) having an opening part (unmarked opening part that is covered by an element 163), which is opened, at a first side face (Figure 29);
- a lid (163), which is attached to said first side face of said container body (162), for covering said opening part (Figure 22B);
- a penetrating part (an unmarked recess that forms from a left side wall of an element 162) formed at said container body (163), said penetrating part is formed at an engaging part, which has an extending part that extends along a second side face adjacent to said first side face of said container body (162); Figure 29);

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- a caulking part (unmarked protrusion that extends from edges of the element 163) formed at said lid (163) and inserted into said penetrating part (an unmarked recess that forms from a left side wall of an element 162) (Figures 29-30);

wherein said container body (162) or said lid (163) is provided either of said engaging part or said caulking part (unmarked protrusions that extend from edges of the element 163, see Figure 30) respectively at a plurality of said second side faces adjacent to said first side face (Figures 20-30);

- said penetrating part (an unmarked recess that forms from a left side wall of an element 162) of said engaging part at a first one of said plurality of said second side faces is a penetrating hole in order for said caulking part to be inserted, while said penetrating part of said engaging part at a second one of said plurality of said second side faces is formed as a notch in order for said caulking part to be inserted (Figures 29-30);

- a sealing member (254) having flexibility for forming a liquid container (161), which is a closed space for containing liquid in association with said container body (162) by sealing said opening part of said container body (162), wherein said sealing member (254) is covered by said lid (163) at said first side face (Figure 29);

- Wherein said sealing member (254) comprises a sealing member extending part, which extends to an area facing an edge part of said cartridge body (162) and an edge part of said lid (163), and said sealing member extending part is fixed by being put between said edge part of said lid (Figures 29);

- wherein a caulking part (unmarked protrusion that extends from edges of the element 163) which extends in a direction perpendicular to said first side face is formed at said lid (163), while a penetrating part (an unmarked recess that forms from a left side wall of an element 162) into which said caulking part is inserted, is formed at said container body (162), which does not have said caulking part (Figure 29); and

- wherein said engaging part has an end part a height of which with respect to a direction perpendicular to said second side face is higher than a plane of said extending part (Figure 29); -

- wherein said engaging part (an unmarked recess that forms from a left side wall of an element 162) further comprising a side wall part provided along both side ends of said extending part, and a height of said side wall part with respect to a direction perpendicular to the second side

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face is higher than the plane of said extending part (Figure 29); and
- wherein a liquid supplying part (195) is formed at a side face adjacent to said first side face of said container body (162) and communicates with a liquid containing chamber (193) formed at said container body (162), and said container body (162) is provided with a plurality of engaging parts (an unmarked recess that forms from a left side wall of an element 162, see Figure 29), which extend along a second side face adjacent to said first side face in order to hold said liquid supplying part (195), while said lid (163), which does not have said engaging parts, is provided with a plurality of caulking parts, one of which is inserted into said penetrating part provided at said engaging part (Figures 29-30).

However, Miyazawa et al. do not disclose a caulking part formed at said container body inserted into said penetrating part in order for a tip part thereof to be caulked with heat.

(JP Pat. 5-62448) discloses in Figures 3-4 a caulking part (51) formed at said container body (32) inserted into said penetrating part (38) of a cover (33) in order for a tip part thereof to be caulked (see abstract).

Masuda et al. disclose in Figures 5-8 an ink tank comprising a caulking part (welding pins, not shown) formed at said container body (19) inserted into said penetrating part (pin hole 35 formed in a cover member 30) in order for a tip part thereof to be caulked with heat (see Machine English translation of JP 10-235889, page 6, lines 30-39).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of (JP Pat. 5-62448) and Masuda et al. in the Miyazawa et al. ink cartridge for the purpose of securely engaging between the lid or the cover and the ink cartridge body with a low cost configuration.

Response to Arguments

The applicant's arguments with respect to the prior art rejection have been carefully considered but are moot in view of the new grounds of rejection.

Allowable Subject Matter

Claim 7 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. This claim would be allowable because none of the prior art references of record discloses a liquid cartridge for supplying a liquid by being mounted on a liquid ejecting apparatus comprising an engagement hollow part, which is provided at the container body and has substantially the same width as the engaging part, for accepting the engaging part, wherein a depth of the engagement hollow part is substantially the same as that of the end part in a direction perpendicular to the second side face in the combination as claimed.


Claims 15-16 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. These claims would be allowable because none of the prior art references of record discloses a liquid cartridge for supplying a liquid by being mounted on a liquid ejecting apparatus comprising a memory supporting part for supporting a memory for storing information about a liquid at a second side face adjacent to said first side face of said container body, wherein said memory supporting part is attached to said container body to cover at least one of said caulking parts in the combination as claimed.

Claim 19 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. This claim would be allowable because none of the prior art references of record discloses a method for manufacturing a liquid cartridge comprising a step of fitting said penetrating part, which penetrates in a direction perpendicular to said first side face, with said caulking part, which extends in a direction perpendicular to said first side face, by turning said lid toward said container body, taking a fitted part between said penetrating hole and said caulking part as a turning center in the combination as claimed.

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CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (571) 272-2262. The examiner can normally be reached on Tuesday to Friday from 9:00 A.M. to 7:00 P.M.. The fax number of this Group 2861 is (571) 273-8300.



ANH T.N. VO
PRIMARY EXAMINER
December 07, 2006